２０１８年度　早稲田大学スポーツ科学部

学士入学試験問題（英語）

注　意　事　項

１．問題冊子および解答用紙は、試験開始の合図があるまで開かないこと。

２．受験番号および氏名は解答用紙の所定の欄に記入し、それ以外の所には記載しないこと。

３．解答はすべて解答用紙の所定の欄に黒鉛筆（ＨＢ）またはシャープペンシルで記入すること。

４．解答は解答用紙の下線部の範囲内に記入すること。

５．問題冊子は持ち帰ること。

英語

以下の英文を全文和訳したうえでタイトルをつけなさい。

There is a place in New Brunswick, Canada, to which people travel to be fooled. They call it a magnetic hill. People drive to a certain location on a country road, put their car in neutral, and watch in amazement as it begins to roll *up* the hill. Or, at least, that is what seems to happen. The hill is not magnetic, of course, and the car does not actually go uphill. But the feeling of rolling uphill is there just the same.

We depend on vision to interpret the world around us, using perceptual skills learned over a lifetime of experiences and interactions with our environment. But, our visual perception can sometimes be fooled, and researchers find this very exciting because it leads to fascinating insights regarding how we think and act. The magnetic hill is one of many types of visual illusions—examples of how perception can lead us to mistaken conclusions about reality. An important lesson about the magnetic hill illusion is that what we see often overshadows what we feel.

There are scores of visual illusions, and scientists have been studying them for many years. One of the better known and most often studied of these is called the Müller-Lyer illusion, which is illustrated in figure 1.1. Compare the two lines in the figure. The line between the tails (i.e., > and <) in the figure on the left looks longer than the line in the figure on the right. In reality, the lines are identical in length; the orientation of the inward- and outward-pointing tails, in relation to the line, creates the illusion that the lines are unequal. Your perception of reality has been fooled, not unlike what happens at the magnetic hill.

Visual illusions can lead us not only to see things that are not real, but also to feel things that are not real, such as what occurs in the size–weight illusion. You can readily experience this illusion by filling two containers, one smaller than the other, with equal amounts of mass (e.g., sand). Then, ask a

friend to lift both containers, one at a time, and tell you which one is heavier. After lifting each of the containers, most people perceive that the smaller container is heavier than the larger container. Of course, you know this is wrong because you filled them with equal amounts of sand.

The key to experiencing the illusion depends on seeing the difference in the size of the containers. After many years of experiencing objects of different sizes, we have come to the general conclusion that bigger objects are heavier than smaller objects. The visual difference between the sizes of the two containers has set up, or biased, our motor system to expect something that we have previously experienced to be true. When we pick up the two containers (which are identical in mass), the expectation is that the larger one *should be* heavier than the smaller one. When this fails to be confirmed (because they actually weigh the same), most people conclude that something unexpected is occurring and therefore they perceive, incorrectly, that the smaller object must weigh more than the larger object.

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